

**Notice of Allowability**

Application No.

10/092,669

Applicant(s)

DUNWORTH ET AL.

Examiner

THUAN T. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE on 12/20/2007.
2. ☒ The allowed claim(s) is/are 1-8, 17-22, 42-44 and 54-98.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material         | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

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**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
  
2. The application has been amended as follows: (for withdrawn claims)

Please cancel claims 9-16, and claims 23-33.



Tony T. Nguyen  
Primary Examiner  
Art Unit 2618

TTN  
February 15, 2008

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Please re-submit the IDS submitted on 11/22/2004, see page 4 of 4, before paying the issue fee, since this IDS is illegible during the fax transmission communication.
2. The information disclosure statement (IDS) submitted on 12/20/2007 was filed after the mailing date of the RCE on 12/20/2007. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Remarks***

3. Claims 34-41, 45, 46-53 have been canceled in the supplemental amendment dated 02/26/2007. Pending claims are claims 1-8, 17-22, 42-44, and 54-98 (60-98 new) for reconsideration.

### ***Allowable Subject Matter***

4. Claims 1-8, 17-22, 42-44, and 54-98 have been allowed.

### ***Reasons for Allowance***

5. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach or suggest an apparatus comprising: means for dividing the frequency of an oscillator signal to generate a first signal; means for dividing the frequency of a reference signal to generate a second signal; means for synchronizing the phase of the first signal with the phase of the second signal during calibration; means for adjusting the

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frequency of the oscillator based on a comparison of the first and second signals, the circuitry increasing the oscillator frequency when the first signal edge arrives before the second signal edge, and the circuitry decreasing the oscillator frequency when the first signal edge arrives after the second signal edge; and in an alternative approach, an apparatus comprising: circuitry that divides the frequency of an oscillator signal to generate a first signal; circuitry that divides the frequency of a reference signal to generate a second signal, the reference signal being an externally generated temperature-compensated crystal oscillator signal; circuitry that synchronizes the phase of the first signal with the phase of the second signal during calibration; and circuitry that adjusts the frequency of the oscillator based on a comparison of the first and second signals, the circuitry increasing the oscillator frequency when the first signal edge arrives before the second signal edge, and the circuitry decreasing the oscillator frequency when the first signal edge arrives after the second signal edge as called for in claims 1, 17, 55, and 54-59.

New claims 60-68 depend on allowed independent claim 54. Therefore, new claims 60-68 are also allowable for at least the reasons noted for claim 54. New claims 69-78 depend on allowed claim 55. Therefore, claims 69-78 are also allowable for at least the reasons noted for claim 55. New claims 79-83 depend on allowed independent claim 56. Therefore, new claims 79-83 are also allowable for at least the reasons noted for claim 56. New claims 84-88 depend on allowed claim 57. Therefore, claims 84-88 are also allowable for at least the reasons noted for claim 57. New claims 89-93 depend on allowed independent claim 58. Therefore, new claims 89-93 are also allowable for at least the reasons noted for claim 58. New claims 94-98 depend on allowed claim 59. Therefore, claims 94-98 are also allowable for at least the reasons noted for claim 59. New claims 60-68 recite features analogous to those found in allowed claims 2-5, 7-8

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and 42-44, respectively. Therefore, claims 60-68 introduce no new matter. New claims 69-78 recite features analogous to those found in allowed claims 2-8 and 42-44, respectively.

Therefore, claims 69-78 introduce no new matter. New claims 79-83, 84-88, 89-93 and 94-98 recite features analogous to those found in allowed claims 18-22, respectively. Therefore, claims 79-83, 84-88, 89-93 introduce no new matter.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

**6. Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to the New Central Fax number:**

(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,  
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

**7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895.**

The examiner can normally be reached on Monday-Friday from 9:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tony T. Nguyen  
Primary Examiner  
Art Unit 2618

TTN  
February 15, 2008